

ABSTRACT OF THE DISCLOSURE

A method and apparatus to estimate the channel fade (both the amplitude gain/loss and the phase rotation) to assist the receiver to detect and recover the transmitted signal employs a continuous pilot signal such as the pilot code channel or pilot symbols. The channel estimator uses the same scrambling pattern of pilot channel and coherently integrates the continuous pilot signal to yield a channel estimate. The present invention employs adaptive integration duration to yield a channel estimate. The integration duration of the pilot signal for channel estimation is adaptive and proportional to the Doppler period. The Doppler period is proportional to the inverse of Doppler frequency and is an indicator of how fast the channel changes.